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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

GOMA, TAWFIK A

ART UNIT

PAPER NUMBER

2627

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/618,115	WEIRAUCH, CHARLES R.	
	Examiner	Art Unit	
	Tawfik Goma	2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 September 2006 and 26 February 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 and 27-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 and 27-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 September 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date: _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date: _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

This action is in response to the amendment filed on 9/5/2006 and appeal brief filed on 2/26/2007.

The appeal brief presented arguments with respect to the lack of requested support for an Official Notice regarding a rejection of claim 8. Prosecution is reopened in view of this argument. The rejection of claim 8 now contains the proper support for the Official Notice taken in the Non-Final rejection.

Drawings

The drawings were received on 9/5/2006.

Specification

The amendment to the specification filed on 9/5/2006 is acknowledged and entered.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 5, 6, 9-18 and 27-29 are rejected under 35 U.S.C. 102(b) as being anticipated by Satoh (US 5119363).

Regarding claim 1, Satoh discloses an optical storage medium, comprising: a disk-like body (fig. 2); and at least one optically detectable mark on the disk-like body (fig. 5a), the at least one optically detectable mark being readable by a plurality of different optical systems

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configured for different types of optical storage media (col. 5 lines 61-66 and col. 11 lines 3-16).

Regarding claim 2, Satoh discloses wherein the at least one optically detectable mark is located on a buried layer of the optical storage medium (9, fig. 6).

Regarding claim 3, Satoh discloses wherein the buried layer is a non-data layer of the optical storage medium (6, fig. 3A).

Regarding claim 5, Satoh discloses wherein the at least one optically detectable mark is located on a surface of the optical storage medium (figs. 5a, 5b). The surface of the disk is indented with the marks.

Regarding claim 6, Satoh discloses wherein the at least one optically detectable mark is located within a non-user-data area of the optical storage medium (9, fig. 4).

Regarding claim 9, Satoh discloses wherein the at least one optically detectable mark is uniform in width along an axis coinciding with a radius of the optical storage medium (W, fig. 4).

Regarding claim 10, Satoh discloses wherein the at least one optically detectable mark is shaped approximately like a sector of an annulus (figs. 5a, 5b).

Regarding claim 11, the claim is interpreted in view of the objection to the drawings applied above. Satoh discloses wherein the detectable has a trapezoidal shape (fig. 5a)

Regarding claim 12, Satoh discloses wherein the disk type is of a CD (figs. 3-11). Satoh discloses that the disk type can contain digital video data (DVD) or TV video data (CD).

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Regarding claim 13, Satoh discloses a method for determining the type of an optical storage medium (col. 5 lines 61-66 and col. 11 lines 3-16), comprising: reading, from the optical storage medium using an optical system (col. 9 lines 8-10), at least one optically detectable mark that is readable by a plurality of different optical systems configured for different types of optical storage media (col. 5 lines 61-66 and col. 11 lines 3-16); and interpreting the at least one optically detectable mark to identify the type of the optical storage medium (col. 11 lines 3-16).

Regarding claim 14, Satoh discloses wherein the optical storage medium comprises a circular disc and the at least one optically detectable mark comprises a band of optically detectable marks disposed around a circle concentric with the circumference of the optical storage medium (figs. 5A, 5b and M1-M8 fig. 8).

Regarding claim 15, Satoh discloses wherein the optically detectable marks comprising the band are uniformly spaced (q2, fig. 9a, 9b).

Regarding claim 16, Satoh discloses wherein the optically detectable marks comprising the band are spaced sufficiently far apart to be detectable by an optical system achieving a predetermined largest expected focus spot (col. 1 lines 66 thru col. 2 lines 1-3). Satoh uses the index marks in order to reduce the effect of having to use a tiny light spot for detection.

Regarding claim 17, Satoh discloses wherein interpreting the at least one optically detectable mark to identify the type of the optical storage medium comprises measuring the spacing of the optically detectable marks comprising the band (col. 6 lines 37-56).

Regarding claim 18, Satoh discloses wherein interpreting the at least one optically detectable mark to identify the type of the optical storage medium comprises measuring at least one dimension of the at least one optically detectable mark (col. 6 lines 49-56).

Regarding claims 27 and 29, Satoh discloses an optical device, comprising: an optical system to read (fig. 10), from an optical storage medium (fig. 11a), at least one optically detectable mark that is readable by a plurality of different optical systems configured for different types of optical storage media; and logic (fig. 12) configured to interpret the at least one optically detectable mark (col. 5 lines 61-66 and col. 11 lines 3-16).

Regarding claim 28, Satoh discloses wherein the optical device comprises at least one of a CD device and computer optical drive (fig. 10).

Claims 1, 2 and 4 are rejected under 35 U.S.C. 102(b) as being anticipated by Kobayashi (US 6278672).

Regarding claim 1, Kobayashi discloses an optical storage medium, comprising: a disk-like body (D, fig. 1); and at least one optically detectable mark on the disk-like body (12, fig. 7b), the at least one optically detectable mark being readable by a plurality of different optical systems configured for different types of optical storage media (fig. 6 and fig. 4).

Regarding claim 2, Kobayashi discloses wherein the at least one optically detectable mark is located on a buried layer of the optical storage medium (12, fig. 7b).

Regarding claim 4, Kobayashi discloses wherein the buried layer is a data layer of the optical storage medium (12, fig. 7b).

Claims 1, 7 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Hayashi (US 5684773).

Regarding claim 1, Hayashi discloses an optical storage medium, comprising: a disk-like body; and at least one optically detectable mark on the disk-like body, the at least one optically detectable mark being readable by a plurality of different optical systems configured for different types of optical storage media (col. 12 lines 34-46).

Regarding claims 6 and 7, Hayashi discloses wherein the non-user-data area comprises a lead-in area of the optical storage medium (col. 12 lines 34-36).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hayashi (US 5864773) in view of Yoon (US 6772429).

Regarding claim 8, Hayashi discloses everything claimed as applied above (see claim 6 above). Hayashi fails to disclose wherein an optically detectable mark is located in a lead-out area of a disk. Yoon (US 6772429) discloses a lead-out area with an optically detectable mark (130, fig. 5). It would have been obvious to one of ordinary skill in the art to modify the recording medium disclosed by Hayashi by providing a lead-out area with an optically detectable mark. The rationale is as follows: One of ordinary skill in the art at the time of the

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applicant's invention would have been motivated to provide a lead-out area with an optically detectable mark in order to provide a guard area for the disk (see Yoon, col. 4 lines 66-67 through col. 5 lines 1-9).

Response to Arguments

Applicant's arguments filed 9/5/2006 have been fully considered but they are not persuasive. Applicant's arguments with respect to the optically detectable mark being optically readable by a plurality of different optical systems is not persuasive because a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

In the instant case, the marks disclosed by Satoh are optically detectable and are readable by a plurality of different optical systems due to their structure. Satoh discloses that the marks are detectable and readable using an incoherent light source, such that light does not have to be focused in order to read the marks. The size of the marks allows them to be read and detected by unfocused light, and as a result they are fully capable of performing the intended use claimed. That is, since the structure of the marks makes them capable of being read by different optical devices, since light does not have to be focused and a particular laser light source does not have to be used, the marks of Satoh are structural equivalents to those claimed.

Similarly, the marks of Kobayashi and Hayashi are formed such that they can be read by the device prior to discriminating the type of medium they are formed on. As a result, these marks are fully capable of the intended use claimed by applicant because an optical system that is configured to read any one of the types of the discs that are disclosed in Kobayashi and

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Hayashi would be capable of reading the discrimination marks. For example, Hayashi discloses providing a discrimination mark for a CD/DVD device that also discriminates for different DVD type discs. The discrimination mark is fully capable of being read by different optical systems because the optical systems (i.e. DVD, DVD-R, DVD-Ram systems) disclosed within the single device of Hayashi are each capable of reading the common disc discrimination mark. That is, the disc discrimination mark is structurally formed such that the variables changes among the different optical systems for reading the different types of DVD's, does not affect the capability of the device to read the discrimination mark. Similarly, Kobayashi discloses wherein a mark is formed on a disc such that the S shape characteristic of a focus signal reproduced from the disc discriminates the type of disc. The optical systems of Kobayashi for reading different types of CD's are all capable of reading the discrimination information read through the focus signal, and therefore, different optical systems are capable of reading the discrimination marks using the method of Kobayashi.

Applicant's request for support of the rejection of claim 8 is acknowledged. The rejection of claim 8 above presents support for the Official Notice taken in the previous non-final rejection.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after

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the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tawfik Goma whose telephone number is (571) 272-4206. The examiner can normally be reached on 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Korzuch can be reached on (571) 272-7589. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

T. Goma
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6/21/2007


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